WETLAND ENHANCEMENT (ACRE)

CODE 659

DEFINITION

The modification or rehabilitation of an existing or degraded wetland, where specific functions and/or values are modified for the purpose of meeting specific project objectives.

PURPOSE

To modify the hydrologic condition, hydrophytic plant communities, and/or other biological **and physical** habitat components of a wetland for the purpose of favoring specific wetland functions or values. For example: managing site hydrology for waterfowl or amphibian use, or managing plant community composition for native wetland hay production.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on any existing wetland where the objective is to specifically enhance a selected wetland function(s)and/or value(s).

This practice does not apply to: a constructed wetland intended to treat point and non-point sources of water pollution; wetland restoration intended to rehabilitate a degraded wetland where the soils, hydrology, vegetative community, and biological habitat are returned to original conditions; or wetland creation for creating a wetland on a site location which historically was not a wetland or on a site which was formerly a wetland but will be replaced with a wetland type not naturally occurring on the site. **(See Field Office Technical Guide (FOTG), Section IV, Practice Standards, 656—Constructed Wetland; 657—Wetland Restoration; 658—Wetland Creation.)**

CRITERIA

General Criteria

The landowner shall obtain **all applicable** local, state, and federal permits **including** water rights, if required, **prior to** wetland enhancement.

The design will not back water on neighboring land without an easement.

Document the soil, hydrology, and vegetative characteristics of the site and its contributing watershed before alteration.

Enhancement will not adversely affect the wetland functions provided at the site, and there will not be a change of wetland class.

Upon completion of the enhancement the site will meet the current NRCS wetland criteria (soil, hydrology, vegetation).

Criteria for Hydrology Enhancement

The hydrology of the site (defined as the rate and timing of inflow and outflow, source, duration, frequency, and depth of flooding, ponding, or saturation) **shall be** modified **or maintained** to meet the project objectives. An adequate source of water must be available to meet designs for increased hydrology.

The standards and specifications for **FOTG, Section IV, 356—Dike; and, 587—Structure for Water Control** will be used as appropriate. Refer to the Engineering Field Handbook, Chapter 13, "Wetland Restoration, Enhancement, and Creation," and **Chapter** 6, "Structures," for additional design information. Existing drainage systems will be utilized, removed, or modified as needed to achieve the intended purpose.

NOTE: This type of font **(AaBbCcDdEe 123..)** indicates NRCS National Standards.
This type of font **(AaBbCcDdEe 123..)** indicates Montana Supplement.

Criteria for Vegetation Enhancement

Where possible, native plant materials shall be used; however, introduced or cultivated plant species **may** be used to meet specific project objectives.

When using native species, preference shall be given to locally adapted plant materials.

Adequate substrate material and site preparation necessary for proper establishment of the selected plant species shall be included in the design.

Criteria for Wetland Functions

Project goals and objectives shall minimize adverse impacts to wetland functions not specifically targeted for enhancement.

Implementation of this practice will not adversely affect threatened, endangered or state species of special concern or their habitats.

CONSIDERATIONS

Where native seed sources are adequate, natural regeneration will be allowed.

Introduced species may become invasive or detrimental—use them with caution. When planning consider individual species selection and how each species will respond at the given site.

Consider existing wetland functions and/or values that may be adversely impacted.

Consider the potential for a change in rates of plant growth and transpiration because of changes in the volume of available soil water.

Consider effects on downstream flows or aquifers that would affect other water uses or users.

Consider effects on wetlands or water-related resources **and** wildlife habitats that would be associated with the practice.

Consider linking wetlands by corridors wherever appropriate to enhance the wetland's use and colonization by the flora and fauna.

Consider establishing vegetative buffers on surrounding uplands to reduce sediment and soluble and sediment-attached **pollutants** carried by runoff and/or wind.

The nutrient and pesticide tolerance of the species planned should be considered where known nutrient and pesticide contamination exists.

Consider water quality to avoid salinization by using appropriate field border widths.

PLANS AND SPECIFICATIONS

Specifications for this practice shall be prepared for each site. Specifications shall be recorded using approved specifications sheets, job sheets, narrative statements in the conservation plan, or other documentation. Requirements for the operation and maintenance of the practice shall be incorporated into site specifications.

OPERATION AND MAINTENANCE

The following actions shall be carried out to insure that this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation), and repair and upkeep of the practice (maintenance):

- Any use of fertilizers, mechanical treatments, prescribed burning, pesticides and other chemicals to assure the wetland enhancement function **will** not compromise the intended purpose;
- Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) **will** be implemented where available and feasible;
- Timing and level setting of water control structures is required for the establishment of desired hydrologic conditions, for management of vegetation and for optimum wildlife use;
- Inspection schedule for embankments and structures for damage assessment;
- Depth of sediment accumulation to be allowed before removal is required;
- Management needed to maintain vegetation, including control of unwanted vegetation;
- Haying and livestock grazing will be managed to protect and enhance established and emerging vegetation;
- **A functional assessment can aid in tracking progress or failure and indicate need for maintenance or management change.**

Conservation practice standards are reviewed periodically and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.